Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A receiver for demultiplexing a digital data stream, the digital data stream including data packets each having a packet identifier, so as to retain only those data packets required by the receiver, the receiver comprising:

an input module for receiving and processing the digital data stream;

a memory for storing packet identifiers corresponding to data packets required by the receiver and separate from the input module;

a first control circuit for controlling the storage in the memory of the packet identifiers;

a second control circuit for extracting a packet identifier from a data packet in the digital data stream; and

a third control circuit for receiving the extracted packet identifier and determining whether such matches one of the packet identifiers stored in the memory, for setting a match signal to the second control circuit responsive to a match, and for outputting an address in the memory responsive to a match, wherein the second control circuit accesses the address in the memory to retrieve control information associated with the packet identifier and controls processing by the input module of the input data packet responsive to the match signal by the input module. third control circuit.

2.   (Canceled)

3.   (Previously Presented) The receiver of claim 1 wherein responsive to the control information the second control circuit controls the transfer of the input data packet to a destination address identified by the control information.

4. (Previously Presented) The receiver of claim 1, wherein responsive to the control information the second control circuit retrieves a data payload from the input module, processes the data payload and transfers the processed data payload to a destination address identified by the control information.

5. (Previously Presented) The receiver of claim 1 wherein responsive to the match signal not being set, the second control circuit instructs the input module to discard the input data packet.

6. (Original) The receiver of claim 1 in which the digital data stream is an MPEG-2 encoded stream.

7. (Previously Presented) The receiver of claim 3 in which the input data packet comprises a packetized elementary stream.

8. (Previously Presented) The receiver of claim 4 in which the data payload comprises program specific information, and the receiver further comprises a filter controlled by the second control circuit for filtering sections in the data payload so as to retain only those data packets having sections required by the receiver.

9. (Original) The receiver of claim 1 in which first control circuit is a receiver processor, the second control circuit is a transport processor, and the third control circuit is a search engine.

10.   (Currently Amended) A set-top-box including a receiver for demultiplexing a digital data stream, the digital data stream including data packets each having a packet identifier, so as to retain only those data packets required by the receiver, the receiver comprising:

an input module for receiving the digital data stream;

a memory for storing packet identifiers corresponding to data packets required by the receiver and separate from the input module;

a first control circuit for controlling the storage in the memory of the packet identifiers;

a second control circuit for extracting a packet identifier from a data packet in the digital data stream; and

a third control circuit for receiving the extracted packet identifier and determining whether such matches one of the packet identifiers stored in the memory, for setting a match signal to the second control circuit responsive to a match, and for outputting an address in the memory responsive to a match, wherein the second control circuit accesses the address in the memory to retrieve control information associated with the packet identifier and controls processing <u>by the input module</u> of the input data packet responsive to the match signal by the ~~input module.~~ <u>third control circuit.</u>

11.   (Previously Presented) A method of demultiplexing a digital data stream input to a receiver, the digital data stream including data packets each having a packet identifier, so as to retain only those data packets required by the receiver, comprising the steps of:

inputting the digital data stream;

storing in a memory separate from the data stream and under the control of a first control circuit, packet identifiers of data packets required by the receiver;

extracting, under the control of a second control circuit, a packet identifier from a data packet in the input digital data stream;

determining, under the control of a third control circuit, whether the extracted packet identifier matches one of the stored packet identifiers;

setting a match signal responsive to a match determined by the third control circuit;

outputting, responsive to a match and under the control of the third control circuit, an address in the memory;

accessing, under the control of the second control circuit, the address in memory;

retrieving control information associated with the packet identifier and stored at such address; and

demultiplexing, under the control of the second control circuit, the input data packet responsive to the match signal.

12.   (Canceled)

13.   (Previously Presented) The method of claim 11 further comprising the step of:

transferring, under the control of the second control circuit, the input data packet to a destination address identified by the control information.

14.   (Previously Presented) The method of claim 11 further comprising the steps of:

processing, under the control of the second control circuit, the input data packet in dependence on the control information; and

transferring, under the control of the second control circuit, the processed input data packet to a destination address identified by the control information.

15.   (Original) The method of claim 11 in which the step of demultiplexing comprises discarding the input data packet responsive to the match signal not being set.

16.   (Original) The method of claim 11 in which the digital data stream is an MPEG-2 encoded stream.

17.   (Previously Presented) The method of claim 16 in which the input data packet comprises a packetized elementary stream.

18.   (Previously Presented) The method of claim 16 in which the input data packet comprises program specific information, and wherein said demultiplexing step comprises:

filtering sections in the input data packet so as to retain only those data packets having sections required by the receiver.

19.   (Original) The method of claim 11 in which the step of determining a match comprises systematically searching the memory.

20.   (Previously Presented) A method of decoding a broadcast digital data signal in a set-top-box comprising:

inputting the digital data stream;

storing in a memory separate from the data stream and under the control of a first control circuit, packet identifiers of data packets required by the set-top-box;

extracting, under the control of a second control circuit, a packet identifier from a data packet in the input digital data stream;

determining, under the control of a third control circuit, whether the extracted packet identifier matches one of the stored packet identifiers;

setting a match signal responsive to a match determined by the third control circuit;

outputting, responsive to a match and under the control of the third control circuit, an address in the memory;

accessing, under the control of the second control circuit, the address in memory;

retrieving control information associated with the packet identifier and stored at such address; and

demultiplexing, under the control of the second control circuit, the input data packet responsive to the match signal.

21.-38. (Canceled)

39.   (Previously Presented) A receiver for processing a packetized digital data stream, the receiver comprising:

an input module to receive and process a data packet;

a memory;

a receiver processor to control storage of desired packet identifiers and associated control information in the memory; and

a transport controller having a transport processor to extract a packet identifier from a packet in the input module and a search engine to search the memory for a match of the extracted packet identifier to a desired packet identifier stored in the memory, wherein responsive to a match the transport processor retrieves from the memory control information associated with the desired packet identifier stored in the memory and controls processing of the received data packet by the input module based on the retrieved control information.

40.   (Previously Presented) The receiver of claim 39 wherein the transport processor generates a control signal to control processing of a packet by the input module based on associated control information retrieved from the memory.

41.   (Previously Presented) The receiver of claim 40 wherein the input module discards a packet in response to the control signal.

42.   (Previously Presented) The receiver of claim 40 wherein the input module descrambles a packet in response to the control signal.

43.   (Previously Presented) The receiver of claim 40 wherein the input module passes a data payload to the transport controller in response to the control signal.

44.   (Previously Presented) The receiver of claim 43 wherein the transport controller reformats the data payload based on the control information and passes the reformatted data payload to the input module for output in an alternative output stream.

45.-46. (Canceled)